

AMENDMENT TO THE CLAIMS

Claims 1-17 (Cancelled)

18.(New) A motion compensation method for generating a predictive image of a current macroblock with reference to a motion vector of a co-located macroblock that is included in a picture different from a current picture in which the current macroblock is included and that is co-located with the current macroblock, said motion compensation method comprising:

obtaining a motion vector of a block located in a corner of the co-located macroblock, when a co-located block is composed of a plurality of blocks for which motion compensation has been performed, the co-located block being co-located with a current block included in the current macroblock and being included in the co-located macroblock; and

performing motion compensation for the current block to generate a predictive image of the current block, by using the obtained motion vector.

19.(New) The motion compensation method according to claim 18,

wherein in said performing of the motion compensation,

when a size of the obtained motion vector is within a predetermined range, the predictive image of the current block is generated by setting the motion vector of the current block to "0", and

when the size of the obtained motion vector is beyond the predetermined range, a motion vector of the current block is determined using a motion vector of an adjacent macroblock which is located adjacent to the current macroblock, and the predictive image of the current block is generated by using the determined motion vector.

20.(New) The motion compensation method according to claim 18,

wherein a size of the current macroblock and the co-located macroblock is 16 pixels x 16 pixels,

a size of the current block is 8 pixels x 8 pixels, and
a size of each of the plurality of blocks which are included in the co-located macroblock
and for which motion compensation has been performed is 4 pixels x 4 pixels.

21.(New) A motion compensation method for generating a predictive image of a current macroblock with reference to a motion vector of a co-located macroblock that is included in a picture different from a current picture in which the current macroblock is included and that is co-located with the current macroblock, said motion compensation method comprising:

obtaining respective motion vectors corresponding to the plurality of blocks for which motion compensation has been performed, when a co-located block is composed of the plurality of the blocks, the co-located block being co-located with a current block included in the current macroblock and being included in the co-located macroblock; and

performing motion compensation for the current block to generate a predictive image of the current block, by using the obtained motion vectors,

wherein in said performing of the motion compensation,

when a respective size of the obtained motion vectors is within a predetermined range, the predictive image of the current block is generated by setting the motion vector of the current block to "0", and

when the size of at least one of the obtained motion vectors is beyond the predetermined range, a motion vector of the current block is determined using a motion vector of an adjacent macroblock which is located adjacent to the current macroblock, and the predictive image of the current block is generated by using the determined motion vector.

22.(New) A motion compensation apparatus which generates a predictive image of a current macroblock with reference to a motion vector of a co-located macroblock that is included in a picture different from a current picture in which the current macroblock is included and that is co-located with the current macroblock, said motion compensation apparatus comprising:

a motion vector obtaining unit operable to obtain a motion vector of a block located in a corner of the co-located macroblock, when a co-located block is composed of a plurality of blocks for which motion compensation has been performed, the co-located block being co-located with a current block included in the current macroblock and being included in the co-located macroblock; and

a motion compensation unit operable to perform motion compensation for the current block to generate a predictive image of the current block included in the current macroblock, by using the motion vector obtained by said motion vector obtaining unit.

23.(New) A computer readable recording medium in which a program is recorded, the program performing motion compensation for an image signal, said program causing a computer to execute:

obtaining a motion vector of a block located in a corner of a co-located macroblock, when a co-located block is composed of a plurality of blocks for which motion compensation has been performed, the co-located macroblock being included in a picture different from a current, picture in which a current block included in a current macroblock is included and being co-located with the current macroblock, and the co-located block being included in the picture in which the co-located macrolock is included and being co-located with the current block; and

performing motion compensation for the current block to generate a predictive image of the current block, by using the obtained motion vector.

24.(New) An integrated circuit which generates a predictive image of a current macroblock with reference to a motion vector of a co-located macroblock that is included in a picture different from a current picture in which the current macroblock is included and that is co-located with the current macroblock, said motion compensation apparatus comprising:

a motion vector obtaining unit operable to obtain a motion vector of a block located in a corner of the co-located macroblock, when a co-located block is composed of a plurality of blocks for which motion compensation has been performed, the co-located block being

co-located with a current block included in the current macroblock and being included in the co-located macroblock; and

a motion compensation unit operable to perform motion compensation for the current block to generate a predictive image of the current block included in the current macroblock, by using the motion vector obtained in said motion vector obtaining unit.

25.(New) A mobile terminal comprising the integrated circuit according claim 24.

26.(New) The motion compensation method according to claim 19,

wherein a size of the current macroblock and the co-located macroblock is 16 pixels x 16 pixels,

a size of the current block is 8 pixels x 8 pixels, and

a size of each of the plurality of blocks which are included in the co-located macroblock and for which motion compensation has been performed is 4 pixels x 4 pixels.